

REMARKS

Claims 1 – 11 and 13 – 28 are pending in the present application. By this Amendment, claims 1 and 25 have been amended and claims 10 and 11 have been cancelled. No new matter has been added. It is respectfully submitted that this Amendment is fully responsive to the Office Action dated March 12, 2004.

Allowable Claim Subject Matter:

Applicants gratefully acknowledge the indication on page 22 of the Office Action that claims 9 and 18 have been allowed.

Applicants also gratefully acknowledge the indication on page 23 of the Office Action that claim 25 would be allowable, if amended, to include all of the limitations of the base claim and any intervening claims.

It is respectfully submitted that claim 25 has been rewritten into independent to include the features of base claim 22 and intervening claim 23. Thus, new independent claim 25 is believed to be allowable.

As To The Merits:

As to the merits of this case, the Examiner sets forth the following rejections:

- (1) Claims 1, 11, 22 and 27 stand rejected under 35 U.S.C. §102(e) as being anticipated by Anderson (U.S. Patent No. 6,177,958);
- (2) Claims 2 - 7 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Anderson (U.S. Patent No. 6,177,958) in view of Ohta (U.S. Patent Publication No. 2001/0000969);
- (3) Claims 8 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tsai (U.S. Patent No. 5,309,243) in view of Anderson (U.S. Patent No. 6,215,523);
- (4) Claims 10, 23, 24 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tsai (U.S. Patent No. 5,309,243) in view of Anderson (U.S. Patent No. 6,177,958);
- (5) Claim 12 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Anderson (U.S. Patent No. 6,177,958) in view of Ikeda; and
- (6) Claims 15 – 17, 19 – 21 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Anderson (U.S. Patent No. 6,177,958) in view of Anderson (U.S. Patent No. 6,215,523).

Each of these rejections is respectfully traversed.

Independent Claim 1:

Upon, further review of the Anderson '958 reference, it has become apparent that Anderson '958 actually fails to contain a disclosure about "an automatic wide dynamic range taking mode for generating wide dynamic range, synthesized image based on an information set for the image taking".

In particular, as shown in the flowchart of Fig.11A, Anderson'958 contains: a disclosure about a manual salient still capture (SSC) mode and SSC automatic mode for selecting the means of producing a wide dynamic image having proper exposure 1407 by automatically detecting the need for capturing Salient images when the control means 1404 detects a high contrast scene; and a disclosure about the selecting of one of these modes to effect control of image taking in accordance with the selected mode.

Claim 1, as amended, now calls for "a normal taking control means based on a normal taking mode for generating image pickup signals corresponding to one frame from said image pickup means, by one taking of image based on normal AE information," and further comprises: "at least an automatic wide dynamic range taking control means among a forced wide dynamic range taking control means based on a forced wide dynamic range taking mode for forcing a generation of wide dynamic range, synthesized image, and the automatic wide dynamic range taking control means based on an automatic wide dynamic range taking mode for selectively generating wide dynamic range, synthesized image automatically based at least on an information set for the image taking among object information or information set for the image taking".

With this feature, there is an advantage of additionally improved accuracy in deciding whether or not to generate a wide dynamic range, synthesized image and whether it is suitable or not, since the wide dynamic range, synthesized image is selectively generated not only by using an object information such as AE information or luminance information or motion information of the object but also by using a set information such as strobe photographing mode, consecutive taking mode, scenery (distant view) photographing

mode, sports photographing mode, or macro-strobe photographing mode or an information set for the image taking such as shutter speed or photometric mode (spot photometry) for setting an exposure.

Anderson'958 cited by the Examiner; as previously described on the other hand, contains, as shown in the flowchart of Fig.11A, a disclosure about a manual salient still capture mode and SSC automatic mode for selecting the means of producing a wide dynamic image having proper exposure 1407 by automatically detecting the need for capturing Salient images when the control means 1404 detects a high contrast scene, and a disclosure about the selecting of one of these mode to effect control of image taking in accordance with the selected mode.

Anderson '958, however, does not disclose nor suggest the above described construction that features amended claim 1.

Specifically, amended claim 1 is characterized in that, in the automatic wide dynamic range taking mode, a wide dynamic range", synthesized image is selectively generated automatically based at least on an information set for the image taking among object information or information set for the image taking. This feature is different from "automatic SSC photographing" of Anderson'958 where the need for capturing Salient images is automatically detected when the control means 1404 detects a high contrast scene, in that a wide dynamic range, synthesized image is selectively generated automatically based at least on an information set for the image taking.

Independent Claims 2 and 3:

Independent claims 2 and 3 each call for *means for displaying as a suitability determining information of the synthesized image generating process at least one information out of information based on previously taken image data, information obtained before the taking of image, and information set on the image pickup apparatus before the taking of image that is required in determining whether a suitable wide dynamic range, synthesized image can be obtained.*

In response to Applicants' argument that Ohta's warning messages are not concerned with suitability determining information in determining whether a suitable wide dynamic range, synthesized image can be obtained, the Examiner sets forth in lines 5 – 9 of page 3 of the Action that “Anderson ‘985 has already been provided to show that synthesized wide dynamic images are well known in the art [and] that Ohta is merely provided to show that determining suitable photography and camera conditions based on information obtained before the taking of an image such as white balance and displaying the result is also well know.”

However, the Examiner has failed to appreciate that determining suitable photography before the taking of an image based on white balance or low memory capacity as taught by Ohta is quite different from *displaying as a suitability determining information of the synthesized image generating process ... based ... on information obtained before the taking of image .. in determining whether a suitable wide dynamic range, synthesized image can be obtained.*

In other words, based on the information obtained by Ohta before the taking of the image one of ordinary skill in the art would not be able to determine *whether a suitable wide dynamic range, synthesized image can be obtained*. Thus, combining the teachings of Anderson '985 and Ohta fails to teach the features of independent claims 2 and 3.

In addition, Ohta also fails to teach the features of dependent claims 5 and 6 concerning *said display means displays a result of determination at said determination means as a numerical parameter of information and at the same time displays a suitable range for synthesizing process of the information numeric parameter*.

Independent Claims 7 and 13:

Each of the independent claims 7 and 13 call for *suitability determination means for determining whether information obtained as conditions of generation processing for the generation of wide dynamic range, synthesized image is the information suitable for the generation processing of wide dynamic range, synthesized image*.

With regard to this feature, the Examiner asserts in lines 2 – 3, page 5 of the Action that as “stated in the response to the arguments regarding claims 2 and 3, Ohta does disclose a ‘suitability determination means.’”

Thus, it is submitted that Applicants’ rebuttal comments made with respect to claims 2 and 3 are applicable here as well. More specifically, it is submitted that the Examiner has failed

to appreciate that determining suitable photography before the taking of an image based on white balance or low memory capacity as taught by Ohta is quite different from *suitability determination means for determining whether information obtained as conditions of generation processing for the generation of wide dynamic range, synthesized image is the information suitable for the generation processing of wide dynamic range, synthesized image*, as called for in each of independent claims 7 and 13.

Further, with regard to Applicants' argument that the secondary reference of Ohta fails to disclose the features of claim 7 of displaying "inconsistency" when the taking mode set at said mode setting means and the result of determination made at said suitability determination means are not suitable to each other, as for example shown in Figs. 10A, 10B of the present application, the Examiner fails to provide any rebuttal argument.

Further, with regard to our Applicant's argument that the secondary reference of Ohta fails to disclose the features of claim 13 of directing a change in the setting of parameter of said information or in the setting of taking mode or directing a retake when the taking mode set at said mode setting means and the result of determination made at said suitability determination means are not suitable to each other, as for example discussed on pages 63 and 64 of the present application, the Examiner again fails to provide any rebuttal argument.

As such, it is respectfully requested that the Examiner properly consider these arguments set forth with regard to claims 7 and 13, respectively.

Independent Claim 8:

Independent claim 8 calls for *a means for displaying an exposure amount ratio of the image signals corresponding to a plurality of frames of different exposure amounts.*

For example, as shown in Fig. 11A, and as discussed on page 52 of the present application, an exposure amount ratio 1:4, also represented in a bar graph 51, is displayed to a user.

According to **Tsai** framestore 200 is divided into five storage sections 210-250 that store images exposed at the $N+1$, $N+1/2$, N , $N-1$ and $N-1/2$ exposure levels with each image containing nine pixels (1-9).

In other words, **Tsai** does not need to store exposure ratios since each of the five storage sections 210-250 correspond to a respective exposure level.

In response, the Examiner asserts on lines 7 – 10, page 5 of the Action that “since each of the five storage sections correspond to the exposure level of each stored image, the exposure ratio for a particular can be derived from its corresponding storage section as identifier information using the framestore of **Tsai**.”

However, the Examiner’s comments are overreaching since as discussed above, **Tsai**’s framestore 200 is divided into five storage sections 210-250 that store images exposed at the

N+1, N+1/2, N, N-1 and N-1/2 exposure levels, thus Tsai has no particular need to derive exposure ratios since the exposure levels for the stored images are already designated by the respective storage sections 210-250.

Independent Claim 14

Claim 14 calls for *means for displaying brightness information of a desired portion of object together with an image of the object.*

It has already been submitted that while Tsai may disclose that framestore 200 is divided into five storage sections 210-250 that store images exposed at the N+1, N+1/2, N, N-1 and N-1/2 exposure levels with each image containing nine pixels (1-9), Tsai is totally silent with regard displaying brightness information of a desired portion of object together with an image of the object, as called for in claim 14.

In addition, it was submitted that while Anderson '523 may disclose a review mode in Fig. 8, Anderson '523 is also is totally silent with regard displaying brightness information of a desired portion of object together with an image of the object, as called for in claim 14.

In response, the Examiner asserts on lines 13 – 21, page 5 of the Action that:

Anderson teaches a review mode for displaying thumbnail images of the captured images in the frame memory along with identifier information. Tsai discloses a frame memory with multiple storage section where each section is specifically designated to store an image with a specific exposure amount. Therefore using the review mode and identifier information of Anderson with the image capture method of Tsai it can be possible to

review the plurality of image having different exposure levels using the exposure ratio brightness information of Tsai as each image's identifier so that the user can determine whether or not the proper exposure range of an object scene has been captured to generate a composite image having a wide dynamic range and proper exposure.

However, even if, the Anderson and Tsai are combined in the manner set forth by the Examiner, such combination would still fail to teach the features of claim 14 concerning means for displaying brightness information of a desired portion of object together with an image of the object since Tsai discloses that each stored image, and not desired portions of objects together with an image of the object, has a specific exposure level.

For example, as illustrated in Fig. 22A of the present application and as discussed on pages 64 - 65 of the present application, brightness information of desired portions, i.e., house 1, the person's head 2, the person's torso 3, are corresponding displayed on a bar graph along with an image of the object.

Independent Claim 15:

Claim 15 is characterized in *comprising: means for designating a plurality of desired regions of a displayed image; means for obtaining luminance information of the regions designated by the designating means; and means for adjusting exposure amounts of said plurality of images so as to achieve suitable luminance levels of the respectively obtained luminance information at the time of generating a wide dynamic range, synthesized image.*

Anderson '958 cited by the Examiner, on the other hand, contains a disclosure concerning the extracting of luminance information from each of the plurality of divided regions to detect a high contrast from taken image data divided into a plurality of desire regions as shown in Fig. 8B.

Further, Anderson '523 contains a disclosure pertaining to the fact that the user can enter a review mode so as to observe a large number of images 700 on LCD display region as shown in Fig. 8 to decide whether taken image is acceptable or not.

However, it is respectfully submitted that neither a disclosure concerning “means for designating a plurality of desired regions of a displayed image” nor a disclosure concerning “means for obtaining luminance information of the regions designated by the designating means” is contained in these cited documents. There is no disclosure, nor suggestion pertaining to the fact that “means for adjusting exposure amounts of a plurality of images” adjusts “exposure amounts of said plurality of images so as to achieve suitable luminance levels of the respectively obtained luminance information at the time of generating a wide dynamic range, synthesized image.”

In response to Applicants' above submission, the Examiner presents argument on page 6 of the Action concerning Anderson '523 and Anderson '958 disclosing the features of claim 15 concerning *means for designating a plurality of desired regions of a displayed image* and *means for obtaining luminance information of the regions designated by the designating means*.

However, the Examiner has failed to address Applicants' arguments that there is no disclosure nor suggestion in Anderson '523 and Anderson '958 concerning the features of claim 15 regarding *means for adjusting exposure amounts of a plurality of images so as to achieve suitable luminance levels of the respectively obtained luminance information at the time of generating a wide dynamic range, synthesized image.*

In other words, the Examiner has failed to provide any argument or rely on any specific portion of Anderson '523 and Anderson '958 for teaching these features of independent claim 15.

Further, since claim 15 is fully patentable as described above, claim 16, a dependent claim of claim 15, is thought to be patentable likewise.

Independent Claim 17:

Claim 17 is characterized in that it includes *means for setting the exposure amount of each of a plurality of images of different exposure amounts to a desired exposure amount considered by the user.*" Support for claim 17 is based on the description in p67, line 20 to p68, line 9 of the present specification.

In Anderson '958, though there is a disclosure concerning the setting of exposure amount of image automatically in accordance with information from AE, neither a disclosure nor suggestion is made concerning "means for setting the exposure amount of each of the plurality of

images of different exposure amounts to a desired exposure amount considered by the user” which is a characteristic of amended claim 17. Similarly in Anderson ‘523, though there is a disclosure concerning displaying, neither a disclosure nor suggestion is made concerning “means for setting the exposure amount of each of a plurality of images of different exposure amounts to a desired exposure amount considered by the user” which is a characteristic of claim 17.

Accordingly, even when Anderson ‘523 is incorporated into Anderson ‘958, “means for setting the exposure amount of each of a plurality of images of different exposure amounts to a desired exposure amount considered by the user”, which features claim 17, is thought to be not easily conceivable at all to those skilled in the art.

It is noted that the Examiner has failed to provide any rebuttal arguments with regard to independent claim 17. Accordingly, it is respectfully requested that the Examiner properly consider Applicants’ arguments set forth above with regard to independent claim 17.

Further, since claim 17 is fully patentable as described above, claims 19, 20, 21 and 28, as dependent claims of claim 17, are thought to be patentable likewise.

Independent Claim 22:

Independent claim 22 is characterized in that it includes *an automatic wide dynamic range taking control means for automatically controlling ON/OFF of generation processing of a wide dynamic range, synthesized image by determining based on object information or*

information set for the image taking whether it is suitable for wide dynamic range image taking or not.

With regard to this feature, the Examiner asserts that “Figure 6C of Anderson ‘958 shows an LCD viewing area 302 of the camera used to automatically display the ON/OFF operation status of the salient image capture mode.”¹

However, while Anderson ‘958 may disclose that the status of the SSC mode is displayed, such portion of Anderson ‘958 fails to teach whether wide dynamic range image taking is suitable based on object information or information set for the image taking, as called for in claim 22.

Further, since claim 22 is fully patentable as described above, claims 23 - 27, as dependent claims of claim 22, are thought to be patentable likewise.

In view of the aforementioned amendments and accompanying remarks, the claims, as amended, are in condition for allowance, which action, at an early date, is requested.

¹ Please see, lines 6 – 7, page 9 of the Action.

Response After Final under 37 C.F.R. §1.116
Serial No. 09/395,935
Attorney Docket No. 991014

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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A handwritten signature in black ink, appearing to read 'TEB', is positioned above the printed name of the attorney.

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